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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,271	04/30/2001	Radhika Thekkath	MTEC007/00US	1047

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EXAMINER

KENDALL, CHUCK O

ART UNIT

PAPER NUMBER

2122

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/844,271	Applicant(s) THEKKATH, RADHIKA	
	Examiner Chuck Kendall	Art Unit 2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-18 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Office Action is the response to the communication received on April 19, 2004. Reconsideration of the instant application is requested by Applicant. All such supporting documentation has been placed of record in the file. Claims 1 – 18 are still pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1, 2, 4, 6 – 9, 11, 13 –15 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ayers et al. (U.S. Patent Number 6,353,924).

In regard to Claim 1, Ayers teaches: (a) executing a program that includes a plurality of instructions including one or more user trace data commands (Column 11, lines 35-45) where the command instructs a processor to write user trace data to a user trace data register (Column 11, lines 53-55 and Column 12, lines 1-6, also see Column, 8, lines 10 – 25); (b) detecting a write to at least part of said user trace data register Column 8, lines 22 – 25, and (c) in response to said detected write, generating a trace record that includes part of the user trace data in said user trace data register (Column 8, lines 8 –12, see lines 22 -25).

In regard to Claim 2, Ayers teaches a trace capture component (Figure 4, item 319 and corresponding text).

In regard to Claim 4, Ayers teaches that the trace data register contains identifier values of program blocks. Since this register contains a value, this register holds a general processor register value (Column 8, lines 8-12).

In regard to Claim 6, Ayers teaches saving bits which indicate the direction that branches take during execution, which is useful for debugging (Column 4, lines 5-16).

In regard to Claim 7, Ayers teaches that a trace data command is included in the program prior to execution (Figure 4, item 313 and 315, and associated text).

In regard to Claim 8, Claim 8 is a system Claim that corresponds with Claim 1. Claim 8 is rejected for the same reasons as Claim 1, where Ayers further teaches a system for carrying out the method of Claim 1 (Column 13, lines 49-67).

Claims 9, 11, 13, and 14 correspond directly with Claims 2, 4, 6, and 7, and are rejected for the same reasons as Claims 2, 4, 6, and 7, respectively.

In regard to Claim 15, Claim 15 is a product Claim that corresponds with Claim 1. Claim 15 is rejected for the same reasons as Claim 1, where Ayers further teaches a product for carrying out the method of Claim 1 (Column 13, lines 49-67).

In regard to Claim 18, Claim 18 is a computer data signal Claim that corresponds with Claim 1. Claim 15 is rejected for the same reasons as Claim 1, where a computer data signal is an inherent representation of data stored on any electrical device, such as a computer memory, taught by Ayers (Column 13, lines 49-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers et al. (U.S. Patent Number 6,353,924) in view of Baird et al. (U.S. Patent Number 5,848,264).

In regard to Claim 3, Ayers teaches the method of Claim 2, but does not teach identifying said outputted trace record as containing user trace data. Baird, however, does teach outputting a timestamp identifier which identifies the trace record being generated, and that the record has been generated at a given time with trace data contained within the record. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 2, where said trace record indication identifying said outputted trace record as containing user trace data, as taught by Baird, since this allows a user to be notified when a trace record can be viewed. Claim 10 corresponds directly with Claim 3 and is rejected for the same reasons as Claim 3.

6. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers et al. (U.S. Patent Number 6,353,924) in view of "How Debuggers Work:

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Algorithms, Data Structures, and Architecture" by Jonathan B. Rosenberg, 1996, pages 136-143 (hereinafter Rosenberg).

In regard to Claim 5, Ayers teaches the method of Claim 1, but does not teach that the user trace data register includes a program variable value. Rosenberg, however, teaches the concept of the program stack, which holds variable values in registers for the purposes of tracing (Page 138, lines 6-7 and Page 139, lines 1-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 1, where the user trace data register includes a program variable value, since program variable values are most useful to programmers in deciphering the functionality of their program. Claim 12 corresponds directly with Claim 5 and is rejected for the same reasons as Claim 5.

8. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers et al. (U.S. Patent Number 6,353,924).

In regard to Claim 16, Ayers teaches the function carried out by the computer-readable program code as taught in Claim 1 by Ayers. Although Ayers does not teach transmitting the computer-readable program code to a computer, it would be obvious to do so, since, in order to execute the code, it needs to be transferred into the memory of a computer.

In regard to Claim 17, the examiner takes official notice that the code is transferred over the Internet, since the Internet is a well-known medium for exchanging data between computer systems in different physical locations.

Response to Arguments

Applicant's arguments filed 04/19/2004 have been fully considered but they are not persuasive.

Argument (1), Applicant argues on page 7 of response dated 4/19/2004 that Ayers doesn't disclose "user data command in which execution of the user data command results in writing trace data to a user trace data register".

Response (1), Examiner believes that Ayers does disclose this feature. As set forth above and in Ayers' in 8: 10 – 25, "...If a register is used, then after several such operations (**commands**), the accumulated encoding can be written out to the trace record in memory", and this is all during the execution of the program operation.

Argument (2), Applicant argues on page 8 that Ayers doesn't teach "trace record includes at least a part of the user data written in the user trace data register in response to execution of the user trace data command".

Response (3), As set forth above in claim and as indicated in Ayers, Ayers does teach this limitation in 8:22 – 25, "When the instrumentation code sees that the register 413 is full, it stores all the contents of the register 413, i.e., the four identifiers, into the sequence record, so that the sequence record is as shown at 411B ". Here a portion of the trace data is written to a sequence record after it's written into the trace register.

Argument (3), Applicant further argues on page 8, of the response that Ayers doesn't disclose, "generating a trace record in response to detecting write to a user trace data register..."

Response (3), as set forth above in claim 1 and as taught in Ayers, Examiner believes that Ayers does infact disclose this limitation see, 8:22 – 25, " When the instrumentation code sees that the register 413 is full, it stores all the contents of the register 413, i.e., the four identifiers, into the sequence record, so that the sequence record is as shown at 411B ". Here a sequence record is generated with respect to the trace register.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Kendall whose telephone number is 703 308-6608. The examiner can normally be reached on Mon-Fri 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

CK.



WEI Y. ZHEN
PRIMARY EXAMINER